<u>IN THE CLAIMS</u>

Please amend the claims as follows:

Claims 1-8 (Canceled).

Claim 9 (Currently Amended): A method for synthesis of a routing, comprising:

a) obtaining parameters of:

different configurations of service variants and calculator variants and a

percentage occurrence of the configurations, a sum of proportions of the

configurations being considered equal to one,

cost characteristics of components stored and weighted as a function of their

respective installation proportions, <u>and</u>

partial or complete mapping of <u>the</u> service variants onto <u>the</u> calculator

variants[[,]]<u>;</u>

b) identifying valid routings;

c) evaluating routing cost of the valid routings for each configuration; [[and]]

d) determining the valid routing that minimizes [[the]] <u>a</u> mean, weighted by the

installation proportions of each configuration, of the routing costs for each configuration<u>;</u>

<u>e) displaying, in a first view on a display, a plurality of zones into which the service</u>

<u>variants and the calculator variants are grouped, wherein the first view includes a guide to</u>

<u>indicate how the plurality of zones are situated relative to one another; and</u>

<u>f) displaying, in a second view on the display, the valid routing that minimizes the</u>

<u>mean of a single zone of the plurality of zones.</u>

Claim 10 (Previously Presented): A method according to claim 9, wherein a quality characteristic expressed as breakdowns per million is considered to compare respective measures of two candidate architectures for a product plan.

Claim 11 (Previously Presented): A method according to claim 10, wherein one of the quality characteristics considered is weight.

Claim 12 (Currently Amended): A method according to claim 9, further comprising automatically calculating a cost of assembly of electrical and electronic architecture as a function of a cost of assembly of a strand on a zone of the plurality of zones, of a cost of assembly of a connector on a zone boundary or on a zone of the plurality of zones, of a cost of assembly of a calculator on a zone of the plurality of zones, of a cost of assembly of a sensor or actuator on a zone of the plurality of zones, and of a cost of connection of a connector between zones of the plurality of zones or in a zone of the plurality of zones.

Claim 13 (Currently Amended): A method according to claim 9, further comprising synthesizing optimal routing for all configurations, by repeating operations a) to d), criterion for minimization being a cost composed of:

an estimated recurrent cost of parts,

an estimate of quality cost in anticipation of the cost of repair per zone of the plurality of zones, this quality cost being increased by a constant cost depending on the zone and its ease of access,

an estimate of the cost of weight, taking into account mechanical wear and consumption related to an increase of the weight of the vehicle, and/or

an estimate of the cost of assembly.

Claim 14 (Previously Presented): A method according to claim 9, applied to synthesis of the electrical architecture of a newly created product or to synthesis of an electrical architecture modified relative to a previous architecture.

Claim 15 (Currently Amended): A ~~manufactured article comprising: a~~ computer readable storage ~~means having a~~ medium including computer ~~program for synthesizing~~ executable instructions to synthesize a routing, wherein the ~~computer program comprises a~~ ~~code for execution of the~~ instructions, when executed by a processor, cause the processor to perform a method, ~~defined in claim 9~~ comprising:

a) obtaining parameters of:

different configurations of service variants and calculator variants and a percentage occurrence of the configurations, a sum of proportions of the configurations being considered equal to one,

cost characteristics of components stored and weighted as a function of their respective installation proportions, and

partial or complete mapping of the service variants onto the calculator variants;

b) identifying valid routings;

c) evaluating routing cost of the valid routings for each configuration;

d) determining the valid routing that minimizes a mean, weighted by the installation proportions of each configuration, of the routing costs for each configuration;

e) displaying, in a first view on a display, a plurality of zones into which the service variants and the calculator variants are grouped, wherein the first view includes a guide to indicate how the plurality of zones are situated relative to one another; and

f) displaying, in a second view on the display, the valid routing that minimizes the mean of a single zone of the plurality of zones.

Claim 16 (Currently Amended): A device for synthesis of a routing, comprising:

a) means for obtaining parameters of:

different configurations of service variants and calculator variants and a percentage occurrence of the configurations, a sum of proportions of the configurations being considered equal to one,

cost characteristics of components stored and weighted as a function of their respective installation proportions, and

partial or complete mapping of the service variants onto the calculator variants[[,]];

b) means for identifying valid routings;

c) means for evaluating routing cost of the valid routings for each configuration; [[and]]

d) means for determining the valid routing that minimizes [[the]] a mean, weighted by the installation proportions of each configuration, of the routing costs for each configuration; and

e) a display configured to display, in a first view, a plurality of zones into which the service variants and the calculator variants are grouped, wherein the first view includes a guide to indicate how the plurality of zones are situated relative to one another, and, in a second view, the valid routing that minimizes the mean of a single zone of the plurality of zones.

Claim 17 (New): A method according to claim 9, wherein the displaying in the first view does not show the valid routings of the service variants and the calculator variants.

Claim 18 (New): A method according to claim 9, wherein the displaying in the second view includes prohibited subzones through which valid routings do not pass.

Claim 19 (New): A method according to claim 9, wherein

the displaying in the first view includes a first compass as the guide, and

the displaying in the second view includes a second compass to indicate how to orient the single zone.

Claim 20 (New): A computer readable storage medium according to claim 15, wherein the displaying in the first view does not show the valid routings of the service variants and the calculator variants.

Claim 21 (New): A computer readable storage medium according to claim 15, wherein the displaying in the second view includes prohibited subzones through which valid routings do not pass.

Claim 22 (New): A computer readable storage medium according to claim 15, wherein

the displaying in the first view includes a first compass as the guide, and

the displaying in the second view includes a second compass to indicate how to orient the single zone.

Claim 23 (New): A device according to claim 16, wherein, in the first view, the display does not show the valid routings of the service variants and the calculator variants.

Claim 24 (New): A device according to claim 16, wherein, in the second view, the display includes prohibited subzones through which valid routings do not pass.

Claim 25 (New): A device according to claim 16, wherein

in the first view, the display includes a first compass as the guide, and

in the second view, the display includes a second compass to indicate how to orient the single zone.